Reviewer's report

Title: Improved Analgesia and Reduced Post-Operative Nausea and Vomiting after Implementation of an Enhanced Recovery After Surgery (ERAS) Pathway for Total Mastectomy

Version: 1 Date: 18 Jan 2018

Reviewer: Michael Grant

Reviewer's report:

Enclosed represents a revised submission by Harbell et al. As note previously, they submit findings associated with an ERAS for breast reconstruction surgery. In general, I think the authors have made a good faith effort in addressing my prior concerns. There remain significant issues with the present text, detailed below:

Major Comments:

1. I have to admit that I'm still having trouble determining if the authors intend for this to represent quality improvement or traditional research. I believe the group has leaned more towards QI, which I feel is probably more appropriate in this circumstance. In addition, as the authors attest in their responses, ERAS initiatives are challenged to link individual benefits to specific process measures. Unfortunately, this study doesn't appear to add appreciably to what we understand regarding ERAS. They show the following: (a.) Regional analgesia likely led to lower opioid administration and pain scores in the postoperative period. (b.) TIVA and multimodal PONV prophylaxis led to reduced incidence of PONV. As Reviewer 2 submits, these findings are not particularly novel.

What would be novel would be to leverage the truly unique aspects of this project - the injection of ERAS into an effectively outpatient setting. Although a major confounder, this study has the potential to inform and educate the readership and buck some unintended trends in ERAS (that it only applies to long inpatient stays or initiatives stop at the time of discharge). Unfortunately, the authors have utilized traditional ERAS metrics such as length of stay and did not show a significant difference. Effectively, they reduce PONV and pain, but with unclear impact. If patient satisfaction scores were presented, or post-discharge opioids use, or certainly reduction in persistent breast pain - these would be compelling findings. Unfortunately, as written, it doesn't provide a clear impression of how this initiative pushes the ERAS conversation forward.
Minor Comments:

- To this lattermost point, the authors assert that we should embrace opioid sparing techniques, which is absolutely true. However, recent literature suggests that it's actually transitional prescription practices that are most impactful. Was there any attempt to discharge patients with fewer opioids or tailor prescriptions to the opioid requirements at the time of discharge?

- The authors have removed details regarding the Pecs and Paravertebral blocks - which can be informative when a reader reviews the methods here. It's also a major confounder that more patients received one block type than another prior to the ERAS period.

I appreciate the opportunity to evaluate this submission.

Are the methods appropriate and well described?
If not, please specify what is required in your comments to the authors.

Yes

Does the work include the necessary controls?
If not, please specify which controls are required in your comments to the authors.

Yes

Are the conclusions drawn adequately supported by the data shown?
If not, please explain in your comments to the authors.

Yes

Are you able to assess any statistics in the manuscript or would you recommend an additional statistical review?
If an additional statistical review is recommended, please specify what aspects require further assessment in your comments to the editors.

I am able to assess the statistics

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